Matti WeckstrÃ¶m

List of Publications by Year
in descending order

44 papers	1,252 citations	331670 21 h-index	377865 34 g-index
44 all docs	44 docs citations	44 times ranked	1093 citing authors

#	Article	IF	Citations
1	Information processing by graded-potential transmission through tonically active synapses. Trends in Neurosciences, 1996, 19, 292-297.	8.6	140
2	Visual ecology and voltage-gated ion channels in insect photoreceptors. Trends in Neurosciences, 1995, 18, 17-21.	8.6	119
3	The contribution of Shaker K+ channels to the information capacity of Drosophila photoreceptors. Nature, 2003, 421, 630-634.	27.8	84
4	Robustness of Neural Coding in Drosophila Photoreceptors in the Absence of Slow Delayed Rectifier K+ Channels. Journal of Neuroscience, 2006, 26, 2652-2660.	3.6	61
5	Cardiac mechanotransduction: from sensing to disease and treatment. Trends in Pharmacological Sciences, 2001, 22, 254-260.	8.7	58
6	Spikes and ribbon synapses in early vision. Trends in Neurosciences, 2013, 36, 480-488.	8.6	56
7	Pacing-induced calcineurin activation controls cardiac Ca2+signalling and gene expression. Journal of Physiology, 2004, 554, 309-320.	2.9	51
8	Large Functional Variability in Cockroach Photoreceptors: Optimization to Low Light Levels. Journal of Neuroscience, 2006, 26, 13454-13462.	3.6	50
9	Effect of light intensity on flight control and temporal properties of photoreceptors in bumblebees. Journal of Experimental Biology, 2015, 218, 1339-46.	1.7	47
10	Transcriptome analysis and RNA interference of cockroach phototransduction indicate three opsins and suggest a major role for TRPL channels. Frontiers in Physiology, 2015, 6, 207.	2.8	42
11	Band-pass filtering by voltage-dependent membrane in an insect photoreceptor. Neuroscience Letters, 1993, 154, 84-88.	2.1	37
12	Calmodulin kinase modulates Ca2+ release in mouse skeletal muscle. Journal of Physiology, 2003, 551, 5-12.	2.9	34
13	Cockroach optomotor responses below single photon level. Journal of Experimental Biology, 2014, 217, 4262-4268.	1.7	32
14	Insect photoreceptor adaptations to night vision. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160077.	4.0	32
15	Modelling sarcoplasmic reticulum calcium ATPase and its regulation in cardiac myocytes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 2181-2202.	3.4	30
16	Postembryonic Developmental Changes in Photoreceptors of the Stick InsectCarausius morosus Enhance the Shift to an Adult Nocturnal Life-Style. Journal of Neuroscience, 2012, 32, 16821-16831.	3.6	29
17	Light-Dependent Modulation of Shab Channels via Phosphoinositide Depletion in Drosophila Photoreceptors. Neuron, 2008, 59, 596-607.	8.1	28
18	Performance of blue- and green-sensitive photoreceptors of the cricket Gryllus bimaculatus. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2014, 200, 209-219.	1.6	27

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19	A method for determining photoreceptor signal-to-noise ratio in the time and frequency domains with a pseudorandom stimulus. Visual Neuroscience, 1994, 11, 1221-1225.	1.0	23
20	Regulation of excitation-contraction coupling in mouse cardiac myocytes: integrative analysis with mathematical modelling. BMC Physiology, 2009, 9, 16.	3.6	23
21	Extracellular Potentials Modify the Transfer of Information at Photoreceptor Output Synapses in the Blowfly Compound Eye. Journal of Neuroscience, 2010, 30, 9557-9566.	3.6	22
22	Cellular elements for seeing in the dark: voltage-dependent conductances in cockroach photoreceptors. BMC Neuroscience, 2012, 13, 93.	1.9	22
23	New indices of arterial stiffness measured from longitudinal motion of common carotid artery in relation to reference methods, a pilot study. Clinical Physiology and Functional Imaging, 2016, 36, 376-388.	1.2	21
24	Elementary and macroscopic light-induced currents and their Ca2+-dependence in the photoreceptors of Periplaneta americana. Frontiers in Physiology, 2014, 5, 153.	2.8	20
25	Effect of ryanodine on atrial natriuretic peptide secretion by contracting and quiescent rat atrium. Pflugers Archiv European Journal of Physiology, 1994, 426, 276-283.	2.8	19
26	Developmental changes in biophysical properties of photoreceptors in the common water strider (Gerris lacustris): better performance at higher cost. Journal of Neurophysiology, 2014, 112, 913-922.	1.8	19
27	Large variation among photoreceptors as the basis of visual flexibility in the common backswimmer. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20141177.	2.6	17
28	Visual ecology and potassium conductances of insect photoreceptors. Journal of Neurophysiology, 2016, 115, 2147-2157.	1.8	12
29	The role of ocelli in cockroach optomotor performance. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2018, 204, 231-243.	1.6	12
30	Difference in dynamic properties of photoreceptors in a butterfly, Papilio xuthus: possible segregation of motion and color processing. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2015, 201, 1115-1123.	1.6	11
31	Non-linear amplification of graded voltage signals in the first-order visual interneurons of the butterflyPapilio xuthus. Journal of Experimental Biology, 2018, 221, .	1.7	10
32	Frequency-selective transmission of graded signals in large monopolar neurons of blowflyCalliphora vicinacompound eye. Journal of Neurophysiology, 2016, 115, 2052-2064.	1.8	9
33	Characterization of the first-order visual interneurons in the visual system of the bumblebee (Bombus terrestris). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2017, 203, 903-913.	1.6	9
34	TheRpa(Receptor Potential Absent) Visual Mutant of the Blowfly (Calliphora) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142 Td (Ery	1.4	7
35	A Novel Estimator for the Rate of Information Transfer by Continuous Signals. PLoS ONE, 2011, 6, e18792.	2.5	6
36	A digital feedback controller application for studying photoreceptor adaptation by â€˜voltage clamp by lightâ€™. Journal of Neuroscience Methods, 1995, 62, 29-36.	2.5	5

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37	cAMP- and cGMP-independent stretch-induced changes in the contraction of rat atrium. Pflugers Archiv European Journal of Physiology, 2000, 441, 65-68.	2.8	5
38	Membrane filtering properties of the bumblebee (Bombus terrestris) photoreceptors across three spectral classes. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2013, 199, 629-639.	1.6	5
39	Harnessing the Flow of Excitation. Advances in Protein Chemistry and Structural Biology, 2016, 103, 25-95.	2.3	5
40	Potentiation of stretch-induced atrial natriuretic peptide secretion by intracellular acidosis. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 277, H405-H412.	3.2	4
41	K+Channels and Their Modulation by 5-HT in Drosophila Photoreceptors: A Modelling Study. Annals of Biomedical Engineering, 2004, 32, 1580-1595.	2.5	4
42	Equilibrating errors: reliable estimation of information transmission rates in biological systems with spectral analysis-based methods. Biological Cybernetics, 2014, 108, 305-320.	1.3	4
43	The Mechanosensory Heart. , 2007, , 1-7.		1
44	The effect of vertical extent of stimuli on cockroach optomotor response. Journal of Experimental Biology, 2020, 223, .	1.7	0